Bachelor of Applied Technology Geographic Information Systems

SCHOOL OF CONSTRUCTION

Overview

The dynamic and practical Bachelor of Applied Technology Geographic Information Systems degree will equip you with specialized knowledge and hands-on experience in Geographic Information Systems (GIS), a rapidly expanding area of information technology.

This program focuses on collecting, analyzing, and interpreting data about Earth's surface. As a student, you will delve into spatial data and learn how to use GIS tools to create detailed maps, analyze geographic patterns, and contribute to fields such as urban planning, environmental management, resource management, and emergency services.

To thrive in the program, you should have a previous post-secondary credential, be comfortable with computers and file management, and be proficient in standard office applications like word processors and spreadsheets.

What to expect

In your first year, you will complete two 15-week semesters of foundational coursework, covering topics from GIS basics to advanced data analysis. You will gain proficiency in working with relational database management systems, cartographic principles, and various GIS software applications.

Alongside technical skills, the curriculum emphasizes critical thinking and problem-solving strategies, ensuring you can confidently tackle complex spatial challenges.

The second year of this applied science program offers a distinctive opportunity to apply your classroom knowledge through a work-integrated learning experience (practicum). This hands-on component is designed to immerse you in the industry, allowing you to work on real-world projects, expand your professional network, and enhance your employment prospects post-graduation.

You'll spend approximately 25 hours per week in class and an additional 25 hours on assignments, studying and project work.

The Bachelor of Applied Technology Geographic Information Systems program will provide you with a strong technical foundation and develop your capacity to make informed decisions that impact local communities and global environments.

Traits, skills and aptitudes

Those working in the geographic information systems field tend to be innovative, objective and directive.

You need:

- math skills
- the ability to think logically and critically
- the ability to study spatial problems and measurements
- problem-solving skills
- speaking and listening skills
- people skills
- self-discipline
- to continually learn to stay up to date in industry practices
- the ability to work as part of a multidisciplinary team.

You should enjoy being innovative, precise, making decisions, supervising others, and having variety in your work.

Practicum, Co-op and Work Integrated Learning

You'll participate in a capstone project and an 800-hour work experience practicum.

During the capstone project, you will solve a typical business challenge in a cost-effective and timely manner using a GIS-based solution.

During the practicum, you will apply what you've learned in a real-world work environment at a GIS company or in a GIS-related position.

Credentials

Upon successful completion of this program, you'll receive a SAIT Bachelor of Applied Technology Geographic Information Systems degree.

Admission requirements

Applicants educated in Canada

Applicants must demonstrate English language proficiency and meet one of the following requirements or equivalents:

- a two-year diploma from a recognized Canadian college, technical institute or equivalent, or
- successful completion of two years at a recognized post-secondary academic institution.

Applicants educated outside of Canada

All applicants who were educated outside of Canada must demonstrate English language proficiency and provide proof they meet the program admission requirements with an international document assessment. Find accepted educational documents and assessment options.

SAIT may also accept courses completed at certain international post-secondary institutions.

Costs

2026/27 tuition and fees

The following estimated costs are effective as of July 1, 2026.

The estimated total cost of tuition and fees is based on the suggested schedule of study. Following a modified schedule will impact the fees you pay per semester and may alter final costs.

The second year of this program is dedicated to a practicum placement where you will earn 30.0 credits towards your degree. Only billable hours amounting to 5.7 credits are used to calculate the tuition rate for this year.

Domestic Students

Year	Number of semesters	Tuition fees	Additional fees	Total per year
1	2	$7,050	$1,764.50	$8,814.50
2	2	$1,339.50	$1,764.50	$3,104
			Total cost:	**$11,918.50**

The estimated total cost of tuition and fees for domestic students is based on the recommended course load per year.

International Students

The program total is based on the estimated amount you will pay if you enter this program during the 2026/27 academic year. The program total amount listed on your letter of admission may appear higher. This amount is your maximum tuition guarantee for the program. SAIT will not exceed this maximum, regardless of changes in tuition and fees between academic years.

Year	Number of semesters	Tuition fees	Additional fees	Total per year

Year	Number of semesters	Tuition fees	Additional fees	Total per year
1	2	$22,830	$1,764.50	$24,594.50
2	2	$4,337.70	$1,764.50	$6,102.20
			Total cost:	**$30,696.70**

The estimated total cost of tuition and fees for international students is based on the recommended course load per year.

Books and Supplies

Books and supplies are approximately $500 per full-time year.

This is a bring-your-own-device program with a workstation hardware and software requirement. See the specific requirements on our computers and laptops page.

Find your booklist on the SAIT Bookstore's website. The booklist will be available closer to the program start date.

Can't find your program or course? The bookstore didn't receive a textbook list. Contact your program directly to determine if they're still refining course details or if you're in luck; no textbook purchase is required this term.